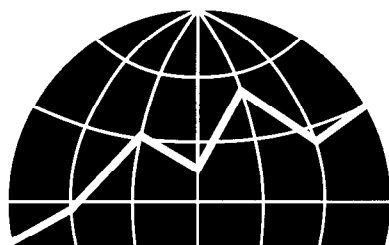


# Foreign Labor Developments



## International comparisons of compensation costs

Patricia Capdevielle

In 1990, hourly compensation costs in Canada rose to 107 percent of the average U.S. level for manufacturing production workers, while those in Japan declined slightly to 87 percent of U.S. costs. (See table 1 and chart 1.) Among the European countries, costs in Germany<sup>1</sup> rose to 144 percent of the U.S. average, those in France to 103 percent, and those in the United Kingdom to 84 percent, and the trade-weighted<sup>2</sup> average cost level for 15 European countries increased to 118 percent of U.S. costs. Hourly compensation costs in the newly industrializing economies of Asia (Hong Kong, Korea, Singapore, and Taiwan) rose to 26 percent of U.S. costs, and those in Brazil and Mexico increased to 19 and 12 percent of the U.S. average level. For the 25 foreign economies for which 1990 data are available, the trade-weighted average cost level rose to 88 percent of the U.S. average. Hourly compensation costs reached new highs relative to U.S. costs in all the foreign countries or areas except Japan, Australia, New Zealand, Belgium, the Netherlands, Portugal, and Mexico.

The Bureau of Labor Statistics develops comparative measures of hourly compensation costs in order to provide a basis for assessing international differences in employer labor costs. (See box.) Total compensation costs include pay for time worked; other direct pay; employer expenditures for legally re-

quired insurance programs and contractual and private benefit plans; and, for some countries, other labor taxes. Changes over time in relative compensation cost levels are affected by the differences in underlying wage and benefit trends. They are also affected by frequent, and sometimes sharp, changes in relative currency exchange values.

Japan and all of the European countries except the Netherlands had larger national currency increases in hourly compensation costs than did the United States in both 1989 and 1990. However, the exchange values of the yen

and all of the European currencies fell relative to the U.S. dollar in 1989. Consequently, hourly compensation costs measured in U.S. dollars fell in Japan and most of the European countries; the decline was 1.5 percent for Japan and for the trade-weighted average for Europe. In 1990, the exchange values of all the European currencies increased relative to the U.S. dollar—by 15 percent on average—while the yen fell for the second year in a row. As a result, compensation costs measured in U.S. dollars increased significantly in all the European countries but rose only modestly in Japan (an average 22

### A note on international compensation costs

The accompanying discussion summarizes detailed data presented in *International Comparisons of Hourly Compensation Costs for Production Workers in Manufacturing, 1990*, Report 803 (May 1991). The report is available from the Bureau of Labor Statistics, Washington, DC 20212. This report and similar reports published twice a year present comparative levels and trends in hourly compensation costs in 30 countries and areas. Definitions of terms, study methods, and data limitations are summarized in the reports.

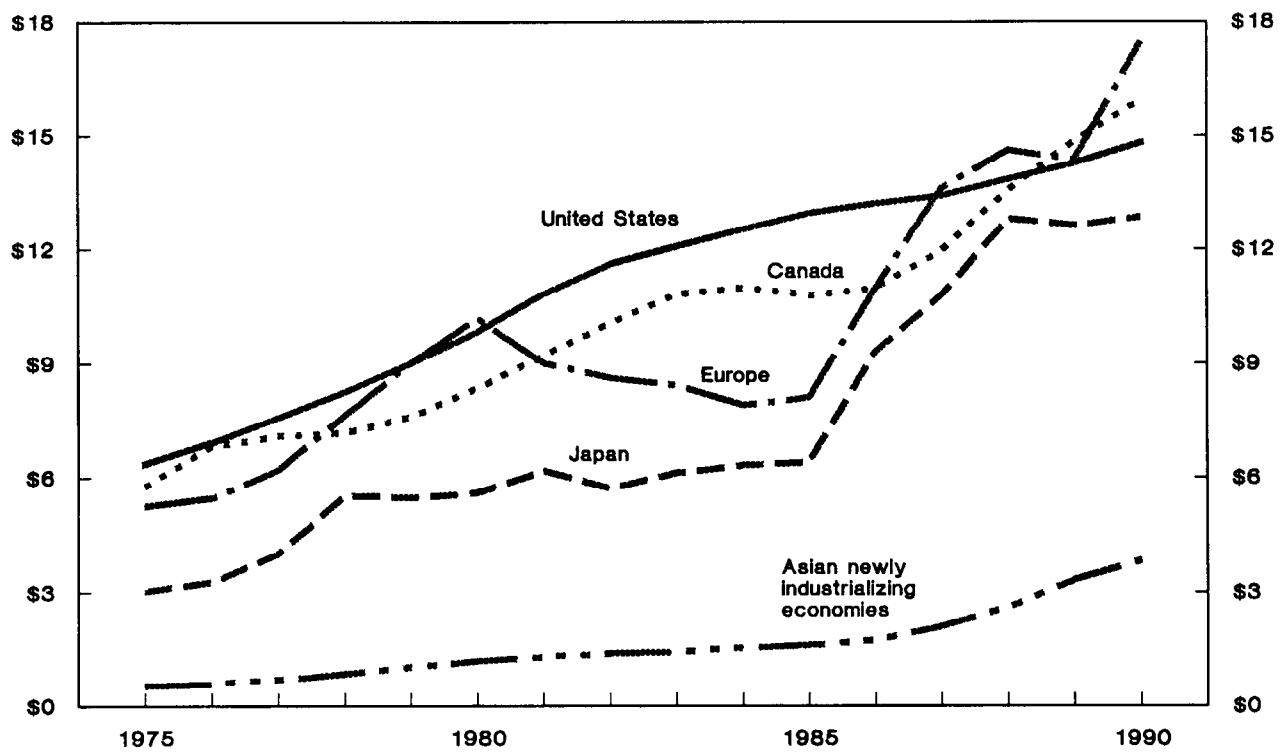
The hourly compensation measures discussed here are based on statistics available to BLS as of April 10, 1991. The compensation measures are computed in national currency units and are converted to U.S. dollars at prevailing commercial market currency exchange rates. Hourly compensation converted into U.S. dollars at commercial exchange rates is an appropriate measure for comparing levels of employer labor costs. It does not indicate relative living standards of workers or the purchasing power of their income. Prices of goods and services vary greatly among countries, and commercial market exchange rates are not reliable indicators of relative differences in prices.

**Data limitations.** Because hourly compensation is partly estimated, these statistics should not be considered as precise measures of comparative compensation costs. In addition, the figures are subject to revision as the results of new labor cost surveys or other data used to estimate compensation costs become available. For some countries, special estimation procedures have been used because the data are incomplete.

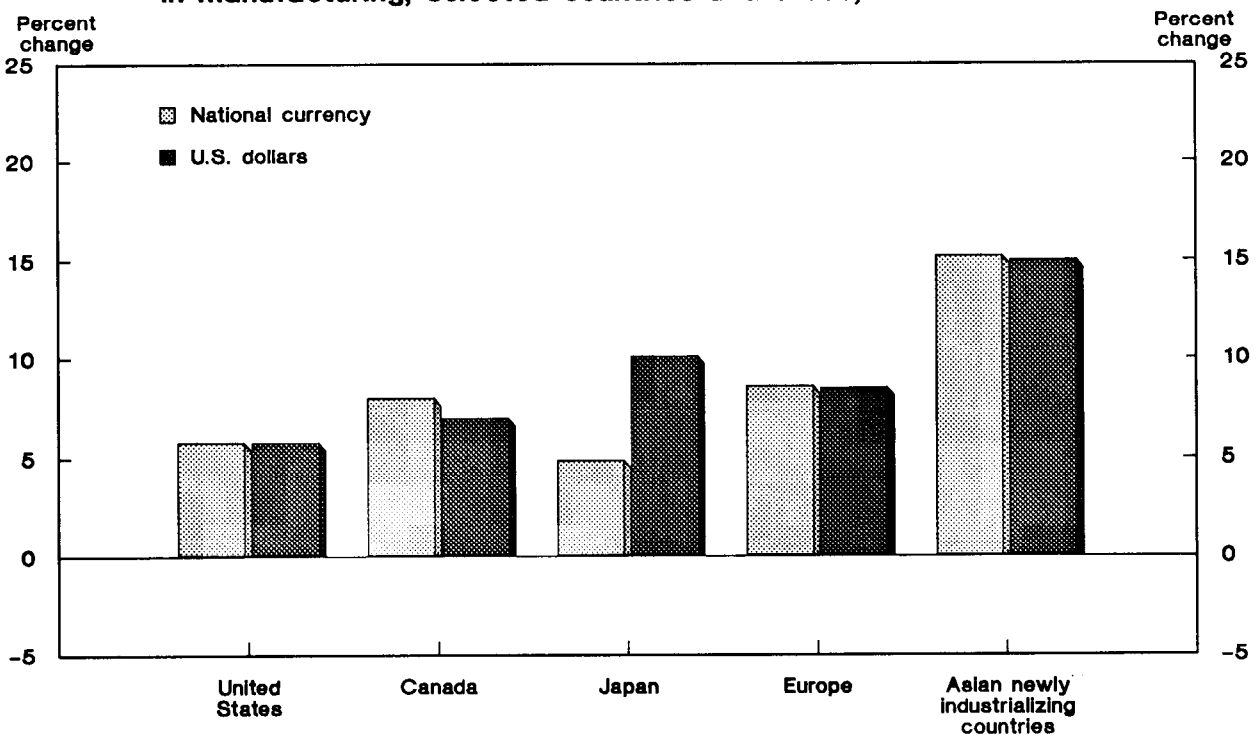
The comparative level figures presented here are averages for all manufacturing industries and are not necessarily representative of component industries. In the United States and some other countries, such as Japan, differentials in hourly compensation cost levels by industry are quite wide. In contrast, other countries, such as Germany and Sweden, have narrow differentials.

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**Chart 1. Hourly compensation costs in U.S. dollars for production workers in manufacturing, selected countries and areas, 1975-90**



**Chart 2. Average annual percent change in hourly compensation costs in national currency and U.S. dollars for production workers in manufacturing, selected countries and areas, 1975-90**



percent for Europe versus less than 2 percent for Japan).

Canada also had larger underlying increases in hourly compensation costs than the United States in both 1989 and 1990. The Canadian dollar appreciated relative to the U.S. dollar in both years, and Canadian costs measured in U.S. dollars rose at 3 times the U.S. rate in 1989 and almost twice the U.S. rate in 1990. The cost increase in Canadian dollars was slightly higher in

1990 than in 1989, but the cost increase in U.S. dollars moderated somewhat in 1990 because the appreciation of the Canadian dollar slowed.

For the four newly industrializing economies in Asia—Hong Kong, Korea, Singapore, and Taiwan—the increase in trade-weighted average hourly compensation costs was smaller in 1990 than in 1989, as measured in both national currency and U.S. dollars, but the slowdown was greater in U.S. dol-

lars, as the average currency exchange rate value for these economies appreciated in 1989 but declined slightly in 1990. Their 1990 average U.S. dollar cost increase was higher (15 percent) than for Canada and Japan, but less than for any of the European countries.

*Long-term trends.* In the United States, hourly compensation costs increased, on average, 5.8 percent per year between 1975 and 1990. (See chart 2.) When Brazil and Mexico are excluded (because of their high rates of inflation), the trade-weighted average annual increase for the remaining 23 of the 25 foreign economies, measured in U.S. dollars, was 9.5 percent. The components were an 8.5-percent annual increase in national currency terms and an average exchange rate appreciation of 0.9 percent. In each 5-year subperiod of the 1975–90 span, the underlying foreign compensation cost increase was larger than in the United States. However, the average trade-weighted exchange rate value of the foreign currencies rose 1.3 percent per year from 1975 to 1980, declined 5.7 percent per year from 1980 to 1985, and then appreciated 7.7 percent per year from 1985 to 1990. Hourly compensation costs in U.S. dollars in the 23 economies rose from 64 percent of the U.S. cost level in 1975 to 73 percent in 1980, dropped to 57 percent by 1985, and increased sharply to 93 percent of the U.S. level as of 1990. (See table 1.)

Charts 2 through 4 show annual percent changes in hourly compensation costs measured in national currency and U.S. dollars for the entire 1975–90 period and for the 5-year subperiods for the United States, Canada, Japan, Europe, and the Asian newly industrializing economies.

The underlying trend in hourly compensation costs was somewhat more pronounced in Canada than in the United States, but because the trend in the exchange rate of the Canadian dollar was down from 1976 to 1986, hourly compensation costs in U.S. dollars declined from 99 percent of U.S. costs in 1976 to 83 percent in 1986. (Neither year is shown in table 1.) However, with the reversal in the exchange rate trend, Canadian costs measured in U.S.

Table 1. **Indexes of hourly compensation costs for production workers in manufacturing, 30 countries or areas and selected economic groups, 1975, 1980, 1985, and 1988-90**

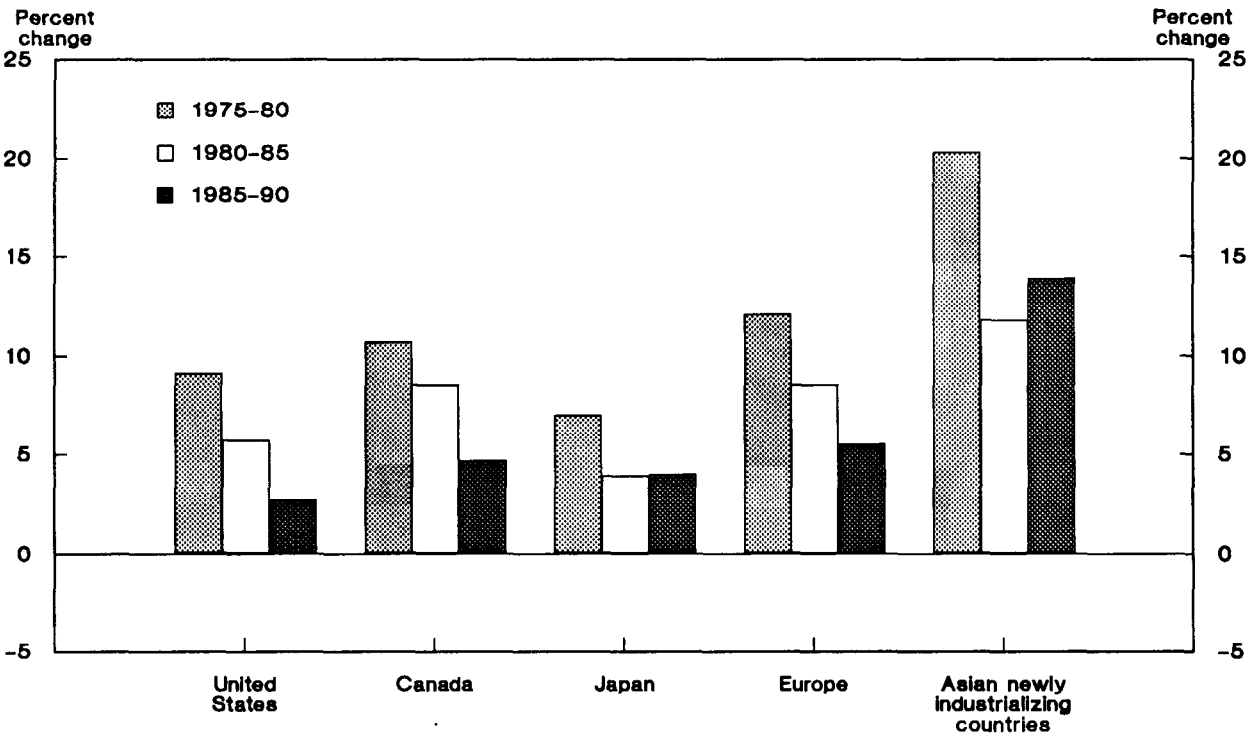
[U.S. level = 100]

Country or area	1975	1980	1985	1988	1989	1990
United States . . . . .	100	100	100	100	100	100
Canada . . . . .	91	85	83	98	104	107
Brazil . . . . .	14	14	9	11	12	19
Mexico . . . . .	—	—	12	10	11	12
Australia . . . . .	87	86	63	81	86	88
Hong Kong . . . . .	12	15	13	17	20	22
Israel . . . . .	35	39	31	55	54	—
Japan . . . . .	48	57	50	92	88	87
Korea . . . . .	6	10	10	18	25	28
New Zealand . . . . .	50	54	34	59	55	56
Singapore . . . . .	13	15	19	19	22	25
Sri Lanka . . . . .	4	2	2	2	—	—
Taiwan . . . . .	6	10	12	20	25	27
Austria . . . . .	68	87	56	101	95	114
Belgium . . . . .	101	133	69	112	107	127
Denmark . . . . .	99	111	63	115	106	126
Finland . . . . .	72	84	62	113	116	139
France . . . . .	71	91	58	94	88	103
Germany . . . . .	100	125	74	130	123	144
Greece . . . . .	27	38	28	38	38	—
Ireland . . . . .	47	60	45	70	66	77
Italy . . . . .	73	81	56	93	93	110
Luxembourg . . . . .	100	122	59	100	—	—
Netherlands . . . . .	103	123	69	117	108	125
Norway . . . . .	107	119	82	136	131	147
Portugal . . . . .	25	21	12	19	20	24
Spain . . . . .	41	61	37	64	64	78
Sweden . . . . .	113	127	75	121	123	141
Switzerland . . . . .	96	113	75	130	117	139
United Kingdom . . . . .	52	76	48	76	73	84
<b>Trade-weighted measures</b>						
25 foreign economies <sup>1</sup> . . . . .	—	—	54	82	82	88
Less Brazil and Mexico . . . . .	64	73	57	87	86	93
Organization for Economic Cooperation and Development (OECD) <sup>2</sup> . . . . .	75	83	65	99	97	105
Europe <sup>3</sup> . . . . .	82	103	63	106	101	118
Asian NIE's <sup>4</sup> . . . . .	8	12	13	19	23	26

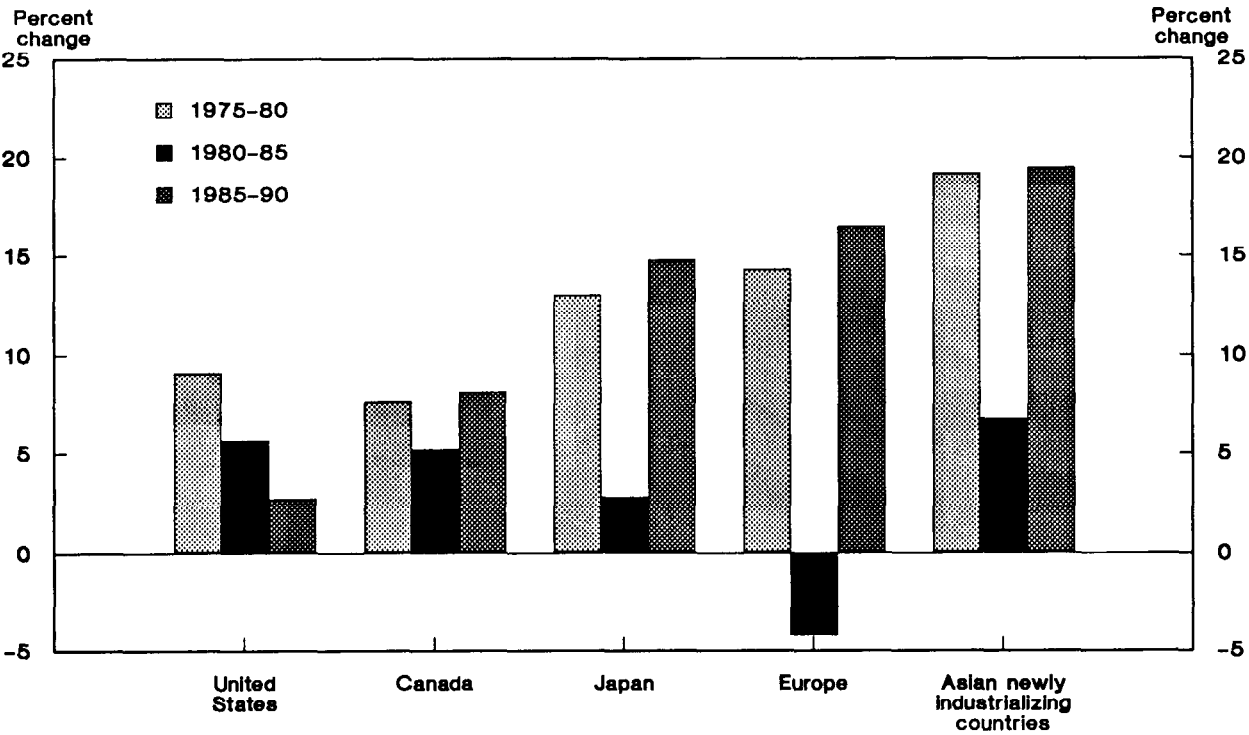
<sup>1</sup> The 25 countries or areas for which 1990 data are available.  
<sup>2</sup> Canada, Japan, Australia, New Zealand, and the 15 European countries for which 1990 data are available.  
<sup>3</sup> The 15 European countries for which 1990 data are available.  
<sup>4</sup> The Asian newly industrializing economies of Hong Kong, Korea, Singapore, and Taiwan.

NOTE: Dash indicates data not available.

**Chart 3. Average annual percent change in hourly compensation costs in national currency for production workers in manufacturing, selected countries and areas, by 5-year subperiods, 1975-90**



**Chart 4. Average annual percent change in hourly compensation costs in U.S. dollars for production workers in manufacturing, selected countries and areas, by 5-year subperiods, 1975-90**



dollars rose sharply to 107 percent of the U.S. level by 1990.

The trade-weighted average underlying trend in hourly compensation costs in the European countries was also more pronounced than that in the United States—2.8-percentage-points difference per year between 1975 and 1990, and about the same in each of the subperiods shown in chart 3. However, because of changes in exchange rates, relative changes in hourly compensation costs measured in U.S. dollars diverged sharply. European average hourly compensation costs rose from 82 percent of the U.S. level in 1975 to 103 percent in 1980, but then fell to 63 percent of the U.S. level in 1984–85 as the dollar appreciated. The European cost level subsequently rose to a high of 106 percent of the U.S. level in 1988, largely because of the 1985–88 depreciation of the dollar; fell back to 101 percent of U.S. costs in 1989 due to an appreciation of the dollar; and then rose sharply to a new high of 118 percent of the U.S. level in 1990 as the dollar depreciated again.

For Japan, the underlying trend in hourly compensation costs was more moderate than in the United States from 1975 to 1985, and somewhat greater overall from 1985 to 1990. The Japanese yen appreciated steeply in 1977–78, fell moderately from 1978 to 1985, rose very sharply in 1986–88, and declined in 1989–90. Hourly compensation costs rose from 48 percent to 67 percent of U.S. costs from 1975 to 1978 (not shown in the table), fell back to 50 percent of the U.S. level by 1985,

and then soared to 92 percent of U.S. hourly compensation costs by 1988. By 1990, Japanese costs fell back to 87 percent of the U.S. level because of an appreciation of the dollar against the yen.

In the Asian newly industrializing economies, the underlying hourly compensation cost increases were more than double those in the United States. However, the currency exchange rates for these economies were little changed relative to the U.S. dollar until the appreciation of the Korean won and Singapore and Taiwan dollars beginning about 1987. The trade-weighted average cost level for these economies increased from 8 to 13 percent of U.S. costs between 1975 and 1985, and to 26 percent in 1990.

*Recent exchange rate developments.* As of April 1991, the value of the Japanese yen against the U.S. dollar was 6 percent higher than its 1990 average, while the Canadian dollar was relatively unchanged and most European currency values were about 5 percent lower than their 1990 averages. European exchange rates were volatile through 1990 and early 1991, however, as was that of the Japanese yen. All of the European currencies appreciated vis-à-vis the U.S. dollar through February 1991, then fell in March and declined further in April. The yen also peaked in February. The Canadian dollar, however, remained nearly constant versus the U.S. dollar during this period. The currencies of Hong Kong, Korea, and Taiwan also remained rela-

tively stable versus the U.S. dollar. The Singapore dollar fluctuated more widely, rising 6 percent above its 1990 average, then falling. As of April 1991, the Singapore dollar was 3 percent higher, the currencies of Korea and Taiwan were 2 percent lower, and the Hong Kong dollar was unchanged versus the U.S. dollar. The Australian and New Zealand dollars appreciated about 5 percent above their 1990 averages as of September 1990, then declined to their 1990 average values as of April 1991.

At April 1991 exchange rates, assuming similar underlying compensation trends, costs in Japan would have risen to 92 percent of the U.S. cost level, those in the other Pacific Rim economies and Canada would have been little changed from their 1990 averages, and those in most European countries would have been lower. However, continued exchange rate volatility through 1991 could result in different cost pattern changes. □

## Footnotes

<sup>1</sup> Data for Germany relate to the former West Germany.

<sup>2</sup> The trade weights used to compute the average compensation cost measures for the selected economic groups are the sum of U.S. imports of manufactured products for consumption (customs value) and U.S. domestic exports of manufactured products (f.a.s. value) in 1986. A description of the trade weights and trade-weighted measures was published in *International Comparisons of Hourly Compensation Costs for Production Workers in Manufacturing, 1975–87*, Report 754 (Bureau of Labor Statistics, 1988).